

REMARKS

Claims 10 to 15 and 17 to 27 are pending in the present application.

In view of the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

As a preliminary matter, Applicants' representative Jialin Zhong (Reg. No. 62,937) spoke with Examiner Hongmin Fan on September 28, 2011 about the purported "final" office action dated September 12, 2011. Examiner Hongmin Fan agreed that the final office action as shown on the summary page was an error, and that the office action was in fact a non-final office action according to his records. Therefore, the response is a non-final office action.

Claims 10 to 13, 15, 19 to 21, and 24 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Pat. No. 5,702,124 ("Foo"), in view of U.S. Pat. No. 5,515,287 ("Hakoyama"), and in further view of Japan Pat. Pub. No. 2001247001 ("Imai"). We disagree with the rejection for the following.

To reject a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish *prima facie* obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Also, as clearly indicated by the Supreme Court in *KSR*, it is "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed. *See KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007). In this regard, the Supreme Court further noted that "rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *Id.*, at 1396. Second, there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art

reference(s) must teach or suggest all of the claim features. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

Claim 10 is directed to a device for determining an instant at which a vehicle makes contact with an impact object and provides for *a determining* arrangement for *determining the instant of contact* by approximating a signal derived from an acceleration signal *using a quadratic function*. The Office Action essentially admits that Foo does not disclose this feature, but it nevertheless relies on the newly cited Hakoyama (col. 7, lines 22-27) as assertedly somehow disclosing the feature. The rejections are respectfully traversed.

First, even if Hakoyama may refer to a formula to determine “the time required for own ship to move from the present, position thereof to a possible collision point with the target ship” by solving the quadratic equation (5), it refers to this equation (5) only for substituting variable time *t* in two other equations (3), (4).

Second, Hakomaya merely concerns a formula (5) that is based on the position and velocity of a ship. In stark contrast, the presently claimed subject matter provides for *a signal derived from an acceleration signal using a quadratic function*. Thus, Hakoyama does not disclose or suggest *an acceleration signal* as provided for in the context of claim 10.

Third, Hakoyama is directed to ship navigation at sea, whereas the presently claimed subject matter is directed to the safety of automobile occupants. Therefore, Hakoyama is directed to a totally different subject matter than the present one.

Finally, the Hakoyama merely concerns displaying points of possible contacts, not instants of (real) contacts as the provided for in the context of the presently claimed subject matter.

As regards the secondary Imai reference, it only refers to how to distinguish head-on collision types from other collision types by “approximating the trajectory of the time integration value of the deceleration with respect to time” (see Imai, Par. [0009]). In fact, Imai does not disclose the feature of *determining the instant of contact by approximating a signal derived from an acceleration signal using a quadratic function*, as provided for in the context of claim 10. Therefore, the combination of Foo, Hakoyama, and Imai does not disclose all of the features as provided for in the context of claim 10, so that claim 10 is allowable, as are its dependent claims.

It is therefore respectfully submitted that any combination of Foo, Hakoyama, and Imai would not disclose all of the features as provided for in the context of claim 10, so

that claim 10 is allowable, as are its dependent claims 11 to 13, 15, 19 to 21, 24, and 27. Withdrawal of the obviousness rejections of claims 10 to 13, 15, 19 to 21, 24, and 27 is therefore respectfully requested.

Claim 14 was rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Foo, Hakoyama, and Imai, in further view of U.S. Pat. App. Pub. No. 2001/0043011 (“Ugusa”).

Claim 14 ultimately depends from claim 10, and it is therefore allowable for at least the same reasons as claim 10, since the further Ugusa reference does not cure the critical deficiencies of the combination of Foo, Hakoyama, and Imai as to claim 10.

Claims 17, 18, 22, 23, 25, and 26 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Foo, Hakoyama, and Imai, in further view of U.S. Pat. No. 6,636,794 (“Yamashita”).

Claims 17, 18, 22, and 23 ultimately depend from claim 10, and they are therefore allowable or at least the same reasons as claim 10, since the further Yamashita reference does not cure the critical deficiencies of the combination of Foo, Hakoyama, and Imai as to claim 10.

Independent claims 25 and 26 include features like those of claim 10, and they are therefore allowable for essentially the same reasons as claim 10.

As further regards all of the obviousness rejections, any Official Notice is respectfully traversed to the extent that it is maintained and it is requested that the Examiner provide specific evidence to establish those assertions and/or contentions that may be supported by the Official Notices under 37 C.F.R. § 1.104(d)(2) or otherwise. In particular, it is respectfully requested that the Examiner provide an affidavit and/or that the Examiner provide published information concerning these assertions. This is because the § 103 rejections are apparently being based on assertions that draw on facts within the personal knowledge of the Examiner, since no support was provided for these otherwise conclusory and unsupported assertions. (See also MPEP § 2144.03).

Accordingly, all of claims 10 to 15 and 17 to 27 are allowable.

CONCLUSION

It is therefore respectfully submitted that all of the presently pending claims are allowable. It is therefore respectfully requested that the rejections (and any objections) be withdrawn, since all issues raised have been addressed and obviated. An early and favorable action on the merits is therefore respectfully requested.

Respectfully submitted,
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Dated: December 12, 2011

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